(c) whether Government would consider the trial of the new vaccine for human use and to replace the old Anti-Rabies vaccine; and

(d) if so, by when Government propose to make available this new vaccine for the public?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN): (a) A new Biotechnology based vaccine for controlling Rabies in animals is under development at the National Institute of Immunology.

(b) The protective efficacy of this experimental vaccine has been studied and confirmed in experimental animals in National Institute of Immunology and other Centres. In Laboratory animals the protection has been found to be very high. The vaccine is at present being developed for use in domestic animals.

(c) and (d) A decision regarding the use of this vaccine for human can be taken only after its safety and efficacy is fully established first in animals and then in humans and after obtaining the required statutory approvals from authorities in the country. No trials of this new experimental vaccine in humans is under consideration at this time. At this stage it is not possible to tell when exactly this vaccine would be made available for the general public.

Advisory board and working group on KBCS on use of Sanskrit in fifth generation Computer Systems

*86. SHRI PRAMOD MAHAJAN:
SHRI SHANKER SINH VAGHELA:

Will the PRIME MINISTER be pleased to refer to the answer to Unstarred Question 411 given in Rajya Sabha on 15th November 1988 and state:

(a) the names, addresses and background of members, of the Advisory Board and the Working Group on knowledge based Computer System (KBCS) and also on Ancient Indian Sciences including Sanskrit constituted by Government;

(b) the outlines and salient features of the project on using Sanskrit as the Language for KBCS|Fifth Generation Computer System; and

(c) the progress made so far in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN): (a) The names, addresses and merit details of members of Advisory Committee and Working Group on Knowledge Based Computer System and Ancient Indian Sciences including Sanskrit are as follows:—

ADVISORY COMMITTEE

1. Prof. Satchidananda Murthy, Vice Chairman (UBC), Chairman of the Committee—well known scholar concerned with education and promotion of Indian culture.

2. Prof. V. G. Bhide Vice-Chancellor, University of Poona—scholar and scientist with deep interest in Ancient Indian Sciences and their relationship with modern scientific thought.

3. Dr. S. V. Sohoni (ICS), Vice Chancellor, Tilak Maharashtra Vidyapith, Pune—well known Sanskrit scholar.

4. Prof. R. Venkatachalam, Vice Chancellor, Dr. Sampoornanda Sanskrit University, Banaras—a well known Sanskrit scholar with deep interest in Ancient Indian Sciences.

5. Dr. P. Krishnakumar, Executive Chairman, Arya Vaidya Shala, Coimbatore—Expert in Ayurvedic medicine including application of modern science and

technology in Ayurveda. Project leader of several S&T projects.

6. Dr. H. N. Mahabala, IIT, Madras—leading Indian computer scientist with interest in studying links of Sanskrit with Natural Language Understanding.

7. Dr. D. K. Subramanian, IISc. Bangalore—Computer scientist with interest in investigating the use of Sanskrit as a language for Natural Language Understanding.

8. Dr. T. Desiraja, NIMHA, Bangalore—well known expert in neuro sciences, interest in the use of computer science and the study of cognitive science.

9. Shri Vesudas, Trivandrum—well known exponent of classical music.

10. Dr. V. P. Bhatkar, Executive Director, CDAC, Pune—Computer Scientist and National Project Director of Knowledge Based Computer System Project of Department of Electronics (DOE).

11. Dr. S. N. Bhavasar, University of Poona, Joint Coordinator of Committee—well known Sanskrit scholar with deep interest in investigation of Ancient Indian Sciences, Sanskrit, Grammer and Logic with respect to links with Knowledge Based Computer Systems.

WORKING GROUP

1. Dr. V. P. Bhatkar, Executive Director, CDAC, Pune—Computer Scientist and National Project Director of Knowledge Based Computer System Project of Department of Electronics (DOE).

2. Shri S. Ramkrishnan, Bharatiya Vidya Bhavan, Bombay—exponent of Ancient Indian Sciences and of Sanskrit language with interest in the scientific investigation of this field.

3. Dr. Navjot Singh, NISTADS, New Delhi—Scientist with deep interest in Ancient Indian Sciences.

4. Dr. Narayana Nair, ER&DC, Trivandrum—Computer scientist working in the field of Artificial Intelligence.

5. Dr. R. Srinivasan, NAL, Bangalore—Computer scientist working in the field of Parallel Processing Architectures.

6. Dr. K. K. Bajaj, Chief Project Coordinator for Knowledge Based Computer System in DOE—working in the area of Logic Programming for Knowledge Based Systems.

7. Dr. A. K. Bagn, INSA, New Delhi—a well known scientist with interest in the area of Ancient Indian Sciences.

8. Prof. Yegnanarayana, IIT, Madras—Computer Scientist working in the field of Speech Recognition by computer systems and interested in the investigation of Sanskrit as a language for Natural Language Processing.

9. Dr. Vineet Chaitanaya, IIT, Kanpur—Computer Scientist working in the area of Natural Language Understanding and interest in the use of Sanskrit for Artificial Intelligence.

10. Dr. S. N. Bhavasar, University of Poona, Joint Coordinator of Committee—well known Sanskrit scholar with deep interest in investigation of Ancient Indian Sciences, Sanskrit, Grammer and Logic with respect to links with Knowledge Based Computer Systems.

(b) A project on using Sanskrit as language for KBCS/FGCS Project has been commissioned by the Department of Electronics at CDAC, Pune. It is entitled "Implementation of Sanskrit as language for Natural Language Processing" Its salient features are as follows: Project aims at exploring the possibility of using Sanskrit as a language for Natural Language Processing, to develop deliverable prototype systems for checking and correcting the Sanskrit Text for a subset for a 10th Standard (resolving the lexical ambiguities and identifying the acceptable grammatical structure for checking of Sanskrit sentences), and then making a question-answering system for a specific domain (e.g. General Science).

(c) The project has been approved only very recently.